## What is claimed is:

1. A polymer having a weight-average molecular weight of  $5.0 \times 10^3$  to  $1.0 \times 10^7$  and comprising a repeating unit represented by formula (I) below:

Formula (I)

$$\begin{array}{c|c}
 & R^2 \\
 & X \\
 & X$$

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wherein R<sup>1</sup> denotes a hydrogen atom or a hydrocarbon group, R<sup>2</sup> denotes a hydrogen atom or a methyl group, X denotes a bivalent connecting group, m denotes 0 or 1, and the guanidino group may form an acid-addition salt.

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2. The polymer of Claim 1, wherein X in formula (I) denotes a connecting group comprising one or more members selected from the group consisting of

Ŕ L....t. p3

wherein R<sup>3</sup>, R<sup>4</sup> and R<sup>5</sup> each independently denote a hydrogen atom, an alkyl group with 1-24 carbon atoms, an aryl group, an arylalkyl group, or hydroxy group.

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3. The polymer of Claim 1, wherein said repeating unit is represented by formula (II) below:

Formula (II)

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wherein R<sup>2'</sup> denotes a hydrogen atom or a methyl group, one of Y and Z denotes a hydrogen atom and the other denotes a hydroxy group, n is 0 to 10, and the guanidino group may form an acid-addition salt.

- 4. The polymer of Claim 1, wherein  $(X)_m$  in the formula (I) is >C=O or -CONH(CH<sub>2</sub>)<sub>0</sub>- wherein p is 0 to 10.
- 5 5. The polymer of Claim 1 having 5 or more percent by weight of said repeating unit of formula (I).
  - 6. The polymer of Claim 1 having 15 or more percent by weight of said repeating unit of formula (I).
  - 7. The polymer of Claim 1 further comprising a repeating unit represented by formula (VI) below:
    Formula (VI)

- wherein R<sup>21</sup> denotes a hydrogen atom or a methyl group and R<sup>22</sup> denotes an alkyl group with 1-24 carbon atoms.
  - 8. The polymer of Claim 3 further comprising a repeating unit represented by formula (VI) below:
- 20 Formula (VI)

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$$-\left\{CH_2-\left\{CH_2-C\right\}\right\}$$

$$COR^{22}$$

wherein  $R^{21}$  denotes a hydrogen atom or a methyl group and  $R^{22}$  denotes an alkyl group with 1-24 carbon atoms.

- 9. The polymer of Claim 1 further comprising a repeating unit derived from a nonionic monomer.
  - 10. The polymer of Claim 4 further comprising a repeating unit derived from

## a nonionic monomer.

11. The polymer of Claim 4 further comprising a repeating unit derived from N-(meth)acryloylmorpholine and/or N-vinyl-2-pyrrolidone.

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- 12. A cosmetic composition comprising the polymer of Claim 1.
- 13. The cosmetic composition of Claim 12 for hair.
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- 14. The cosmetic composition of Claim 12 for skin.
- 15. The cosmetic composition of Claim 12 for nails.
- 16. The cosmetic composition of Claim 12 for enhancing hair fixation.

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17. The cosmetic composition of Claim 12 further comprising at least one selected from the group consisting of water, alcohol solvents, ester solvents, ketone solvents, and hydrocarbon solvents.

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- 18. The cosmetic composition of Claim 12 further comprising at least one selected from the group consisting of water and alcohol solvents.
- 19. A method of treating keratinous substances comprising the step of applying the polymer of Claim 1 to a keratinous substance.

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- 20. The method of treating keratinous substances of Claim 14, wherein said keratinous substance is hair, skin or nails.
- 21. A method of preparing the polymer of Claim 1 comprising the step of preparing a monomer having a guanidino group or an acid-addition salt thereof and the step of polymerizing said monomer alone or copolymerizing said monomer with another monomer.
  - 22. A method of preparing the polymer of Claim 1 comprising the step of

polymerizing a nitrogen-containing monomer alone or copolymerizing the monomer with another monomer to obtain a nitrogen-containing polymer and the step of introducing a guanidino group into said nitrogen-containing polymer.

23. A method of preparing the polymer of Claim 1 comprising the step of polymerizing a monomer having a reactive functional group alone or copolymerizing the monomer with another monomer to obtain a polymer having a reactive functional group and the step of reacting said polymer with a compound having both a guanidino group and a reactive group capable of reacting with said functional group.